

REMARKS

Claims 1-20 are pending. Claims 1-20 were rejected under 35 U.S.C. §103(a), as being unpatentable over Publication No. 2004/0198420 to He (hereinafter "He") in view of Publication No. 20030146876 to Greer (hereinafter "Greer").

Amendments to the Claims

Independent claims 1 and 11 have been amended to recite that the first and second pairs of antenna elements are disposed on said circuit board to optimize spatial diversity of said individual elements to optimize reception of said RF signals at said first and second frequencies. This amendment clarifies the features claimed as part of Applicant's invention and is not in response to any of the rejections in the current Office Action.

Response to Rejection of Claims 1-20

Applicant respectfully submits that the rejection of claims 1-20 under 35 U.S.C. §103(a) should be removed because the proposed combination of He and Greer is improper for two reasons. First, the proposed combination does not provide all of the limitations recited in independent claims 1 and 11. Second, even if the proposed combination did provide all of the limitations recited in independent claims 1 and 11, a person of ordinary skill in the art would not seek to make the combination, as discussed in greater detail below.

Independent claims 1 and 11 recite a first pair of antenna elements for transmitting and receiving RF signals at a first frequency and a second pair of antenna elements for transmitting and receiving RF signals at a second frequency. Claims 1 and 11 further recite that the first and second pairs of antenna elements are disposed on a circuit board to optimize spatial diversity of the individual antenna elements to optimize reception of RF signals at the first and second frequencies.

The He reference discloses a dual mode wireless transceiver having a first antenna and a second antenna disposed at different locations on a laptop computer. The He reference does not disclose first and second pairs of antenna elements as recited in independent claims 1 and 11. Rather, the antennas disclosed in He are individual dual-band antennas.

Greer discloses two antennas mounted on a circuit board, such as a PCMCIA card, for enabling wireless communication. Contrary to Examiner's statement on pages 2-3 of the current Office Action, Greer does not provide a teaching of a "first pair of antenna elements" for transmitting and receiving signals at a first frequency and a "second pair of antenna elements" for transmitting and receiving at a second frequency.

For the reasons set forth above, the combination of Greer and He fails to disclose the limitation recited in independent claims 1 and 11 of "first and second pairs" of individual antenna elements for transmitting at first and second frequencies. It is apparent that the combination of He and Greer fails to anticipate independent claims 1 and 11 and, therefore, the rejection of claims 1 and 11 under 35 U.S.C. §103(a) should be removed.

Aside from the aforementioned failure of the combination of He to provide the limitations recited in independent claims 1 and 11, Applicant further contends that a person of ordinary skill in the art would not seek to modify the teaching of He in view of the teaching of Greer. To establish obviousness based on a combination of elements disclosed in the prior art or a modification of the prior art, there must be some motivation, suggestion or teaching of the desirability of making the claimed invention. *See In re Dance*, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The motivation, suggestion or teaching to modify references may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved. *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Whether the Office Action relies on an express or implicit showing of a motivation or suggestion to modify or combine references, it must provide particular findings related thereto. *In re Dembiczak*, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." *Id.* Thus, the Office Action must include particular *factual findings* that support an assertion that a skilled artisan would have modified the express disclosure of He to develop the invention recited by independent claims 1 and 11. *See In re Kotzab*, 55 USPQ2d 1313, 1317.

Despite Examiner's broad conclusory statement that there would be motivation for the combination, Applicant is unable to discern the requisite factual basis in Greer, He, or the Office Action. Examiner states on page 3 of the Office Action that "it would

have been obvious to one of ordinary skill in the art to implement the invention of He on a PCMCIA after modifying it to incorporate the antenna diversity and selection of Greer." Examiner does not provide any factual finding regarding a suggestion in either the He reference or the Greer reference to modify the invention of He by placing it on a PCMCIA circuit board. The only suggestion of motivation is Examiner's statement that "[o]ne of ordinary skill would have been motivated to do this since spatial diversity and polarization diversity can improve reception performance (Greer Page 2 [0017-0020])".... Applicant contends that this conclusory statement does not provide the requisite motivation required under 35 U.S.C. §103. To the contrary, the He reference recognizes the benefits of spatial diversity. Paragraph 0025 of He contains the following statement regarding signal diversity of multiple antennas:

As antennas at different locations generally have different signal reception performance characteristics, the antenna selection diversity allows the BBIC to select the one of the two antennas which is receiving the signals most strongly.

It is clear, therefore, that one of skill in the art would not seek to combine He and Greer to obtain spatial diversity, since He already recognizes the benefits of spatial diversity.

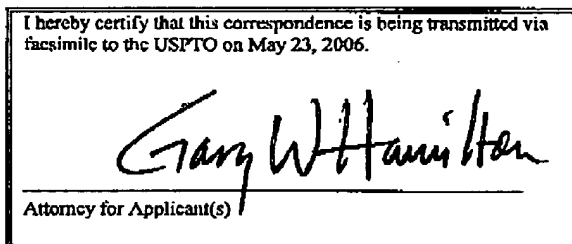
In this regard, the Examiner appears to have engaged in a hindsight-based obviousness analysis condemned by the Federal Circuit. To prevent a hindsight-based obviousness analysis, the Federal Circuit has clearly established that the relevant inquiry for determining the scope and content of the prior art is whether there is a reason, suggestion, or motivation in the prior art or elsewhere that would have led one of ordinary skill in the art to combine or modify references. *See Ruiz v. A.B. Chance Co.*, 57 USPQ2d 1161, 1167 (Fed. Cir. 2000); *see also In Re Rouffet*, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("[T]he Board must identify specifically ... the reasons one of ordinary skill in the art would have been motivated to select the references and combine them to render the claimed invention obvious."). Such a determination that there is a suggestion or motivation to modify the He reference is a factual finding that is prerequisite to an ultimate conclusion of obviousness. *Sibia Neurosciences, Inc. v. Cadus Pharma, Corp.*, 55 USPQ2d 1927, 1931 (Fed. Cir. 2000). Applicant respectfully submits that the Office Action is devoid of such a finding. Without such a finding, a *prima facie* case of

obviousness for rejecting independent claims 1 and 11 under 35 U.S.C. §103(a) based on Greer has not been made. For this further reason, Applicant respectfully submits that independent claims 1 and 11 are patentably distinguished over the proposed combination of He and Greer.

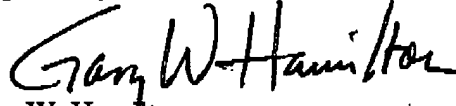
For the reasons set forth above, independent claims 1 and 11 are allowable over the proposed combination of He and Greer and, therefore, the rejection of these claims under 35 U.S.C. §103(a) should be removed. Furthermore, dependent claims 2-10 and 12-20 are allowable since they are dependent from allowable base claims.

CONCLUSION

Applicant respectfully submits that all pending claims are in condition for allowance. Accordingly, Applicant requests that a Notice of Allowance be issued. Should any issues remain that might be subject to resolution through a telephone interview, the Examiner is requested to telephone the undersigned at 512-338-9100.



Respectfully submitted,



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